



# **AB 549 Project: Reducing Energy Consumption in Existing California Buildings**

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# AB 549

- Assembly Bill 549 (AB 549, Longville, Chapter 905, Statutes of 2001) directs the Energy Commission to **"investigate options and develop a plan to decrease wasteful peak load energy consumption in existing residential and nonresidential buildings ... and report its findings to the Legislature."**
- Interim report provided to Legislature in December 2003 ([http://www.energy.ca.gov/reports/2003-12-22\\_400-03-023F.PDF](http://www.energy.ca.gov/reports/2003-12-22_400-03-023F.PDF))
- The final report is due to the Legislature October 1, 2005.



## AB 549 Background

- Sponsored by the California Building Industry Association
- CBIA concerns
  - CEC emphasis on Standards for new buildings requires major effort by building industry to comply
  - CBIA estimates nearly 80% of housing built before 1983 Standards (large savings potential)
  - Unfair competition in real estate market since no regulation for existing buildings



## Interim Report

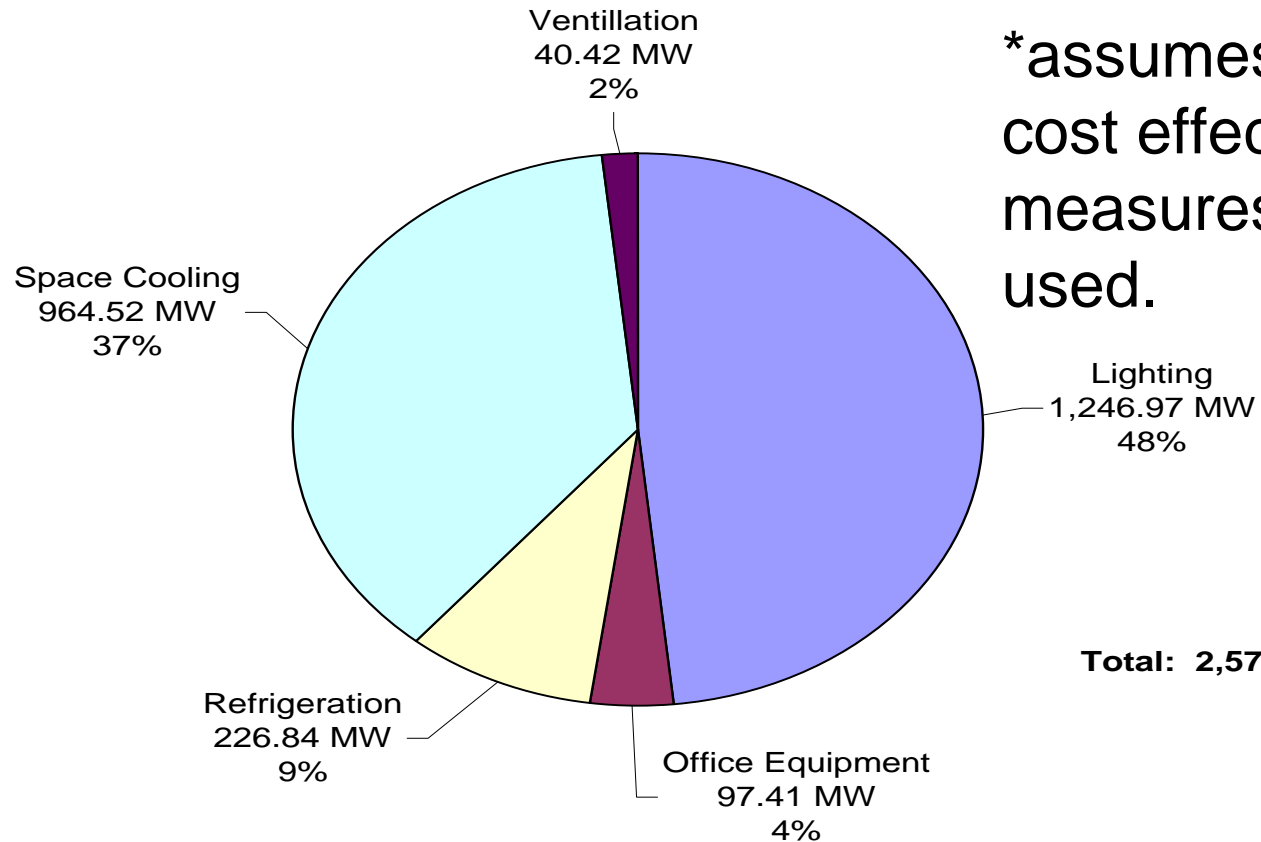
- Existing nonresidential buildings market characterized:
  - 6 billion square feet
  - 3 largest occupancy types:

large offices	17%
retail	16%
non- refrigerated warehouses	13%
- 20% of nonres floor space built prior to efficiency standards
- Schools and colleges represent large opportunity



## California Energy Commission

# Gross Technical Potential Annual Peak Savings Existing Nonresidential Buildings\*



\*assumes all  
cost effective  
measures are  
used.

**Total: 2,576 MW's**



## Potential Trigger Events (nonresidential)

- Time of sale
- Time of lease
- Change in occupancy
- Finance/refinance
- Rate hike
- Re-roofing or window retrofit
- Equipment maintenance/replacement
- Building permit
- Utility classification as large energy user



# Potential Interventions (nonresidential)

- Demand response load control
- Smart controls
- Mandatory retrofits
- Retro Cx/Tune-ups
- Third party verification
- Thermal energy storage
- Tax credits
- Property valuation
- **Benchmarking**
- Risk insurance & performance guarantees
- Technology demonstrations
- Building awards
- Expand Title 24
- Expand Title 20



## Technical Issues Panel

- Benchmarking tool should:
  - offer multiple levels of detail
  - distinguish between efficient operation and energy efficiency features
  - motivate customer to explore cost effective options through effective marketing information
  - encourage repeated use of the tool to track progress





## Use of Benchmarking Panel

- Elements of benchmarking should:
  - Focus on building financing/refinancing trigger events
  - Rely on utilities to insure that buildings are benchmarked
  - Motivate customer to pursue retro-Cx to correct operating problems or audit to ID cost effective efficiency upgrades
  - Include marketing information (linkage to ENERGY STAR)



# Other Discussions on Benchmarking

- Support from some building owners/managers (distinguish their bldg from others)
- Barrier of balancing simplicity with technical robustness (practical but not misleading)
- Be alert to potential to discourage deeper look if number appears satisfactory (include referrals to retro-Cx or audit programs)
- Premature to recommend mandate for benchmarking
- Should work with existing efforts like ENERGY STAR, but incorporate regional info to improve comparison



## Upcoming 549 Activity

- Contractor report to be released in 2 weeks
- Staff Workshop on report on May 2, 2005
- Staff report mid June
- Workshop on staff report late June



## More AB 549 Information

- <http://www.energy.ca.gov/ab549/index.html>